

ABSTRACT OF THE DISCLOSURE

In a training operation for optimizing a multiplication coefficient for each tap of an FIR equalizer equalizing a read signal read from a recording medium, as a restricted coefficient updating vector applied for updating the multiplication coefficient for each tap of the FIR filter, a vector is utilized which is obtained by projecting, onto a plane perpendicular to a predetermined restricting conditional vector, a coefficient updating vector determined based on an equalizer error between the output of the FIR equalizer and a reproduction output determined therefrom and a delayed input value for each tap of the FIR equalizer. As the restricting conditional vector, a vector is utilized which is a difference between a subsequent coefficient vector obtained in the same condition immediately subsequent to and an antecedent coefficient vector obtained in the same condition immediately antecedent to a reference coefficient comprising the multiplication coefficient for the equalizer obtained upon calculating the equalizer error.